

UNITED STATES DISTRICT COURT  
DISTRICT OF MASSACHUSETTS

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CLERK OF COURT  
DISTRICT OF MASSACHUSETTS

DEC 30 2004

FIREMAN'S FUND INSURANCE COMPANY,  
As Subrogee of Hodan Properties, Inc.  
Plaintiff

Vs.

**CASE NUMBER 04-11578 PBS**

FIRE SYSTEMS, INC.,  
FIRE SUPPRESSION SYSTEMS OF  
NEW ENGLAND, INC.,  
PRO CON, INC.  
and BRIERE & PAQUETTE, INC. f/k/a  
PAQUETTE ELECTRIC CO., INC.,  
Defendants

**DEFENDANT, FIRE SYSTEMS, INC.'S,**  
**26(a) INITIAL DISCLOSURES**

**A. THE INDIVIDUALS FOR THE DEFENDANT, FIRE SYSTEMS, INC., WHO  
MAY POSSESS DISCOVERABLE KNOWLEDGE ARE:**

1. Charles Barrett  
Fire Systems Inc.  
955 Reed Road  
North Dartmouth, MA 02747
2. Thomas J. Klem  
Fire Protection Engineer  
24 Robert Road  
Stoughton, MA 02072

**B. THE DOCUMENTS SUPPORTING THE DEFENDANT'S CLAIM ARE:**

1. Attached report prepared by Thomas J. Klem dated November 28, 2003.

**C. COMPUTATION OF DAMAGES:**

Not applicable.

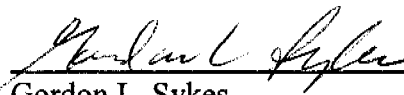
**D. INSURANCE AGREEMENT:**

1. Copy of declarations page.

FIRE SYSTEMS, INC.

By its Attorneys,

**MORRISON MAHONEY LLP**

A handwritten signature in dark ink, appearing to read "Gordon L. Sykes", is written over a horizontal line.

Gordon L. Sykes

BBO # 555580

10 North Main Street

Fall River, MA 02720

(508) 677-3100

**CERTIFICATE OF SERVICE**

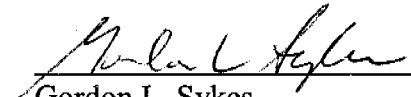
I hereby certify that on December 27, 2004, I served the foregoing document by mailing a copy of same, first class mail, postage prepaid, to the attorneys of record:

David D. Dowd, Esquire  
Curley & Curley  
27 School Street  
Boston, MA 02108

Jocelyn M. Sedney, Esquire  
Brody, Hardoon, Perkins & Kesten  
One Exeter Plaza  
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P.O. Box 608  
Windsor Locks, CT 060-96.

Jon S. Hartmere, Esquire  
Law Offices of Jacqueline L. Allen  
262 Washington Street, Suite 601  
Boston, MA 02108

  
Gordon L. Sykes

BBO #555580

**Morrison Mahoney LLP**

10 North Main Street  
Fall River, MA 02720  
(508) 677-3100

**T. J. Klem & Associates**

CONSULTING FIRE PROTECTION ENGINEERS  
CERTIFIED FIRE INVESTIGATORS

Thomas J. Klem  
email: tjklema@aol.com

November 28, 2003

Michael C. McDonnell, Jr.  
GAB Robins  
One Ellinwood Court  
New Hartford, New York 13413

Dear Mr. McDonnell:

You requested that T. J. Klem and Associates review the circumstances surrounding the sprinkler freeze that occurred at the Residence Inn by Marriott located at 181 Faunce Corner Road, North Dartmouth, MA.

A site visit was conducted on October 30, 2003 and Charles Barrett, the President of Fire Systems, Inc. was interviewed on November 6, 2003.

The following documents have been reviewed for this report:

1. Written statement by Charles Barrett from March 28, 2003
2. Contract between Fire Systems, Inc and the Residence Inn by Marriott
3. Fire Systems, Inc. Test / Inspection Report from November 20, 2002
4. Fire Systems, Inc. Test / Inspection Report from January 16, 2003
5. Expert report by Richard Papetti of GAI Engineers
6. Pictures taken by Richard Papetti
7. Fire Systems, Inc. Invoice dated November 29, 2002
8. Fire Systems, Inc. work order dated December 10, 2002
9. Fire Suppression Systems of N.E., Inc. work order dated January 19, 2003
10. Facsimile dated August 7, 2002 from Fire Suppression Systems of N.E., Inc. to Pro Con Construction providing system acceptance documentation
11. Letter from Charles Barrett to Michael McDonnell of GAB Robins
12. Automatic Sprinkler plans of the building
13. Fire alarm system printout from January 19, 2003

**National Fire Protection Association Standards and Recommended Practices:**

NFPA 13, *Installation of Sprinkler Systems*, 2002 edition  
NFPA 25, *Inspection Testing, and Maintenance of Water-Based Fire Protection Systems*, 2002 edition

Post-it* Fax Note	7671	Date	8/19/04	# of Pages	6
To	GORDON SYKES, ESQ.		From	JIM MIELE	
Co./Dept	MORRISON MATTHEW		Co.		
Phone #	508-677-3100		Phone #	860-723-8227	
Fax #	508-672-3840		Fax #		

## BACKGROUND

On January 19, 2003 at approximately 5:00 PM water was observed leaking from the ceiling of Room 327 of the Marriott Residence Inn. Eventually a pull station, a portion of the built-in fire alarm system for the building, was activated and the Dartmouth Fire Department was automatically notified and responded to the scene. Upon their arrival, firefighters closed the main valve to the dry automatic sprinkler system and the water leakage ultimately stopped. Fire Suppression Services, Inc., the installer of the sprinkler system was called to the scene and determined the incident to be a freeze of some of the components of the system. They later repaired the frozen branch line. Others involved in the installation of the fire alarm system, also summoned to the scene, reportedly found that the "Low Air Pressure Switch" and the "Alarm Pressure Switch" for the dry system were wired incorrectly.

## DISCUSSION

Upon installation, sprinkler systems need to be hydrostatically tested. Additionally, dry systems need to be trip tested satisfactorily. Both of these tests result in water within the dry system that needs to be adequately drained at the conclusion of the testing. The adequate design and installation of automatic sprinkler systems facilitates the complete removal of water from the system through the main and other required drains.

Fire Systems, Inc. performed required maintenance inspections of the sprinkler system at the Residence Inn by Marriott on November 20, 2002 and January 16, 2003. Neither of their inspection reports corresponding to these dates indicates that Fire Systems, Inc. ever performed a dry valve trip test, i.e. water did not fill the dry system on these inspections. However, a portion of the alarm system was tested as required by their contract with the owners of the hotel and reportedly the main drain of the wet system was operated. In their contractual agreement with Marriott, it was agreed that the dry valve trip test of the dry sprinkler system would be performed annually. It is the practice of Fire Systems, Inc. to conduct this test in the spring or summer as suggested by NFPA 25 *Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 2002 edition.

12.4.4.2.2 Each dry pipe valve shall be trip tested annually during warm weather.

Water was reported to have been seen by William Roland, the general manager of the Marriott Residence Inn, on the January 16<sup>th</sup> test date coming from the remote test station outlet. Upon review of the sprinkler plans, this stream of water was at the opposite end of the site where the drawings indicate that the inspector's test for the dry sprinkler system is located and the water seen flowing would have been from the testing of the wet sprinkler system.

It shall also be noted that during our site inspection a random sampling of approximately ten branch lines and cross mains was evaluated to determine the adequacy of their slopes

(pitch) to facilitate adequate drainage. Several dry sprinkler system lines/mains were found to be reversed pitched, some were established to have sufficient pitch, and others were concluded to have little or no pitch at all. The following excerpt is from NFPA 13 *Installation of Sprinkler Systems*, 2002 edition.

8.15.2.3.1 Dry Pipe Systems in Non-Refrigerated Areas. In dry pipe systems branch lines shall be pitched at least  $\frac{1}{2}$  in. per 10 ft (4mm/m) and mains shall be pitched at least  $\frac{1}{4}$  in. per 10 ft (2 mm/m).

The sprinkler lines that froze were found to have sufficient pitch at the time of our inspection. However, this is a moot point because it is not known if these branch lines were pitched correctly before the incident and the sprinkler lines had been replaced and proper pitch achieved at the time of our and others inspections.

The contract between Fire Systems, Inc. and Marriott states that "fire alarm and detection systems under this agreement shall have a random sampling of devices tested during each visit so that the entire system is tested at the end of each contract year." Logical testing of the alarm for the dry system would be during the annual dry valve trip test. The contract also asserts that "this agreement does not include any maintenance, repairs, alterations, or replacement parts unless otherwise specified in this agreement."

We have assessed the reported positions of electrical connections to the alarm devices for the dry system. In the reported position the devices would not sound the fire alarm system upon activation of the dry system, and would also not result in a "trouble signal" under normal operable conditions. Required acceptance testing of the fire alarm system at installation should have detected this installation defect. We have not been provided with such documentation/certification for the fire alarm system. Others have implied and have concluded that the low/high air pressure switch and the alarm pressure switch were rewired incorrectly by Fire Systems, Inc. They were not under contract to perform any repairs (etc.) to such devices and our review of their records show no charges for such work. Their records do indicate that they reported to the management of the hotel that during their routine testing of the fire protection systems for the building that a flow switch for the standpipe system was determined to have been wired incorrectly.

## CONCLUSIONS

There is no factual basis that Fire Systems, Inc. ever tripped the valve of the dry sprinkler system during any of their maintenance inspections. Their reporting of their maintenance to the system on two occasions, clearly reports that the dry valve was not tripped.


Considering the deficiencies in installation of the dry system found during our inspection, the water in the system that resulted in the freeze most likely was the result of the initial acceptance tests and inadequate system drainage performed by Fire Suppression Services, Inc. Again, several branch lines and cross mains were found to have insufficient pitches or reverse pitches, resulting in water being trapped in the sprinkler lines and not readily drained. Finally, the winter of 2003 was the first exposure of this dry system to freezing conditions.

The contract between Fire Systems, Inc. and Marriott called for a random sampling of alarms to be tested at each visit with the entire system being tested once a year. The most reasonable time to test the alarm on the dry sprinkler system would be during the dry valve trip test. This would have been performed during the spring or summer of 2003. Fire Systems, Inc. also would not have performed any repairs or alterations to the system as was suggested by others. We find their conclusion flawed. As an example, during their routine maintenance of the fire alarm and sprinkler systems, Fire Systems, Inc. found a deficiency in the wiring method of a flow switch for the standpipe system and reported it to the owners of the building. The lack of acceptance documentation of the fire alarm system at the time of installation, coupled with the deficiencies found both by Fire Systems and by others following this loss lead us to conclude that the wiring problems with the various fire alarm system devices most likely existed from the time of their installation. We know of no factual basis to conclude that any adjustments to alarm devices were made by Fire System personnel during their maintenance and testing of the fire protection systems at the Marriott.

Finally, several inconsistencies were noted with the reporting of the initial acceptance testing of the sprinkler system. Additionally, during the site visit it was observed that the air compressor for the dry sprinkler system was running excessively. We are obligated to report this condition and the condition of the improper pitch of the sprinkler piping within the attic to the owners of the property. Our inspection of the fire protection systems within the property was limited to areas concerned with this loss and thus other deficiencies may also exist to the systems.

Please let me know if you should have any questions regarding this report.

Sincerely,



Thomas J. Klem, MSCEPE, CFI  
Fire Protection Engineer

07/15/2002 14:37 5089956292

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**ACORD COMMERCIAL GENERAL LIABILITY SECTION**

DATE (MM/DD/YY)

07/15/02

PRODUCER PHONE (A/C No. Ext): 508-998-3008

APPLICANT

(First Named Insured) Fire Systems Inc.

Gramlich Insurance Agency, Inc  
3253 Acushnet Avenue  
New Bedford MA 02745

EFFECTIVE DATE

07/11/02

EXPIRATION DATE

07/11/03

DIRECT BILL

AGENCY BILL

PAYMENT PLAN

AUDIT

CODE: SUB CODE:

AGENCY

CUSTOMER ID: FIRES-1

## COVERAGES

☒ COMMERCIAL GENERAL LIABILITY  
☐ CLAIMS MADE ☒ OCCURRENCE  
☐ OWNER'S & CONTRACTOR'S PROTECTIVE

## EXCLUSIONS

☒ PROPERTY DAMAGE \$ 2000.  
☒ BODILY INJURY \$

☒ PER  
CLAIM  
PER  
OCCURRENCE

## LIMITS

GENERAL AGGREGATE	\$ 2000000
PRODUCTS & COMPLETED OPERATIONS AGGREGATE	\$ 2000000
PERSONAL & ADVERTISING INJURY	\$ 1000000
EACH OCCURRENCE	\$ 1000000
FIRE DAMAGE (Any one fire)	\$ 50000
MEDICAL EXPENSE (Any one person)	\$ 5000
EMPLOYEE BENEFITS	\$

PREMIUMS  
PREMISES/OPERATIONS

PRODUCTS

OTHER

OTHER COVERAGES, RESTRICTIONS AND/OR ENDORSEMENTS (For hired/non-owned auto coverages attach the Business Auto Section, ACORD 127)

TOTAL

## SCHEDULE OF HAZARDS

LOCATION #	CLASSIFICATION	CLASS CODE	PREMIUM BASIS	TERR	RATE		PREMIUM	
					PREMIOPS	PRODUCTS	PREMIOPS	PRODUCTS
001 001	Alarm & Alarm Sys Inst. Servicing & Sales	91127	<del>9 255200</del> 127552		7.000		1812.	
001 001	Independent Contrs	16291	5262.					
001 001	Fire Suppression Sys - Inst. Servicing or Repair incl water flow alarm operations	94381	<del>9 23300</del> 30290		38.20		8107.	

PLAN DISCOUNT 12362736794

## RATING AND PREMIUM BASIS

(S) GROSS SALES - PER \$1,000/SALES  
(P) PAYROLL - PER \$1,000/PAY(A) AREA - PER 1,000/SQ FT  
(C) TOTAL COST - PER \$1,000/COST(M) ADMISSIONS - PER 1,000/ADM  
(U) UNIT - PER UNIT

(T) OTHER

## CLAIMS MADE (Explain all "Yes" responses)

1. PROPOSED RETROACTIVE DATE:

2. ENTRY DATE INTO UNINTERRUPTED CLAIMS MADE COV:

3. WAS ANY PRODUCT, WORK, ACCIDENT, OR LOCATION BEEN EXCLUDED, UNINSURED OR SELF-INSURED FROM ANY PREVIOUS COVERAGE?

4. WAS TAIL COVERAGE PURCHASED UNDER ANY PREVIOUS POLICY?

## EMPLOYEE BENEFITS

1. DEDUCTIBLE PER CLAIM: \$

2. NUMBER OF EMPLOYEES:

3. NUMBER OF EMPLOYEES COVERED BY EMPLOYEE BENEFITS PLANS:

4. RETROACTIVE DATE:

REMARKS

REMARKS